Docket No.: 1027-003US01

## **CLAIMS:**

- 1. A computer-readable medium having a storage asset therein comprising:
- a first data structure that stores asset meta information to control routing of the asset through a medical imaging network;

a second data structure that stores medical imaging information received from a medical imaging modality;

a third data structure that stores pixel data received from the medical imaging modality;

a fourth data structure that stores patch data that includes modifications to the medical imaging information; and

a fifth data structure that stores error detection and correction information.

- 2. The computer-readable medium of claim 1, wherein the medical imaging information includes patient information, session information, study information and image information.
- 3. The computer-readable medium of claim 1, wherein the medical imaging information includes DICOM tags and messages.
- 4. The computer-readable medium of claim 1, a fourth data structure that stores thumbnail data generated from the pixel data.
- 5. The computer-readable medium of claim 4, wherein the thumbnail data includes a low-resolution version of the pixel data and is generated by a router within the medical imaging network.
- 6. The computer-readable medium of claim 1, wherein the patch data includes, for each modification, a revision history having a date, a time, and an operator associated the respective modification.

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7. The computer-readable medium of claim 1, wherein the error detection and correction information comprises a cyclical redundancy check (CRC),

8. A method comprising:

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storing routing information mapping destinations to routes within a network; receiving a storage asset comprising: (i) asset meta information, (ii) original medical imaging information received from a medical imaging modality, and (iii) patch data that includes modifications to the medical imaging information;

selecting a route from the routing information based on the asset meta information; and

forwarding the network communication according to the selected route.

9. The method of claim 8, wherein the storage asset further comprises pixel data received from the medical imaging modality.

10. The method of claim 8, wherein the storage asset further comprises error detection and correction information.

11. The method of claim 8, further comprising:

storing a set of routing rules;

comparing a portion of the medical imaging data or a portion of the patch data to the set of routing rules; and

selecting the route from the routing information based in part on a result of the comparison.

12. The method of claim 8, wherein the asset meta information comprises a target Application Entitiy Name (AEName), and further wherein storing routing information comprises storing routing information mapping AENames to routes within the medical imaging network.

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13. The method of claim 12, wherein selecting a route from the routing information comprises comparing an AEName defined within the network communication to the AEName defined within the routing information.

- 5 14. The method of claim 11, wherein the storage asset further comprises thumbnail data generated from the pixel data.
  - 15. The method of claim 11, wherein the thumbnail data includes a low-resolution version of the pixel data and is generated by a router within the medical imaging network.
  - 16. The method of claim 11, wherein the patch data includes, for each modification, a revision history having a date, a time, and an operator associated the respective modification.
  - 17. The method of claim 12, further including:
    updating the medical imaging information based on the patch data; and
    displaying the corrected medical imaging information on a diagnostic view station.
  - 18. A router comprising:

a computer-readable medium storing routing information mapping destinations to routes within a medical imaging network; and

a routing module to route a storage asset comprising: (i) asset meta information, (ii) original medical imaging information received from a medical imaging modality, and (iii) patch data that includes modifications to the medical imaging information, wherein the routing module selects a route based on the asset meta information to the routing information.

19. The router of claim 18, wherein wherein the asset meta information comprises a target Application Entitiy Name (AEName), and further wherein the routing information maps AENames to routes within the medical imaging network.

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